

Remarks

This Application has been carefully reviewed in light of the Office Action mailed January 30, 2002. Applicants appreciate the Examiner's consideration of the Application. Claims 1-4 and 6-24 have been amended to clarify, more particularly point out, and more distinctly claim inventive concepts previously present in these claims. These amendments are not considered necessary for patentability. Claim 5 has been cancelled without prejudice or disclaimer. New Claims 28-43 have been added. No new matter has been added. Applicants respectfully request reconsideration and favorable action in this case.

Drawings

Formal drawings are submitted with this Response. Applicants respectfully request acceptance of the formal drawings.

Claims 1-20 and 25-27 are allowable under 35 U.S.C. § 102(b)

The Examiner rejects Claims 1-20 and 25-27 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,570,291 to Dudle et al. (*Dudle*). Applicants respectfully submit that *Dudle* fails to disclose, teach, or suggest the combination of limitations specifically recited in Applicants' claims.

At a minimum, *Dudle* does not disclose, teach, or suggest:

(a) generating a selection option set "generated in accordance with a selection of an item by the user from a previous selection option set" (recited in Applicants' Claim 1), providing for presentation a selection option set "generated in accordance with a selection of an item by the user from a previous selection option set" (recited in Applicants' Claim 10), or generating a "list of items generated in accordance with a selection by the user from a previous list of items" (recited in Applicants' Claim 20); and

(b) "identifying an item of a selection option set as a default selection, the default selection optimizing an optimization function" (recited in Applicants' Claim 1), selecting as a default selection an item that "provides an optimized result according to a preselected optimization function" (recited in Applicants' Claim 10), or providing a list that includes a "default item being determined by applying an optimization function to the item availability information" (recited in Applicants' Claim 20).

In contrast, *Dudle* discloses using a predetermined default. According to *Dudle*:

The STANDARD CONTRACT SCHEDULE field refers to the standard price-based schedule used as the basis for selection for the contract price matrix being created. This field defaults to the current price schedule being used unless the user enters the number of another prior price-based schedule. The value in this field is the default value for the same field in subsequent screens.

Column 17, lines 33-40.

Additionally, *Dudle* discloses using a default entered by the user for a field of a screen as a static default for the same field of subsequent screens. According to *Dudle*:

The PRICING FACTOR and the EFFICIENCY FACTOR fields are provided with values by the user which also serve as default values for subsequent screens. The PRODUCT TYPE field is provided with one or more values that is obtained from the corporate office. The SQL server 36, for example, maintains a look-up table of unique identification numbers for each product offered for sale to customers, including forms, labels and other items produced at the plants, and ready-made items offered for resale. This value is a default value in subsequent screens.

Column 17, lines 40-49.

Dudle, however, does not disclose, teach, or suggest:

- generating a selection option set "generated in accordance with a selection of an item by the user from a previous selection option set," and
- "identifying an item of a selection option set as a default selection, the default selection optimizing an optimization function" (recited in Applicants' Claim 1);
- providing for presentation a selection option set "generated in accordance with a selection of an item by the user from a previous selection option set," and
- selecting as a default selection an item that "provides an optimized result according to a preselected optimization function" (recited in Applicants' Claim 10); or
- generating a "list of items generated in accordance with a selection by the user from a previous list of items," and

· providing a list that includes a "default item being determined by applying an optimization function to the item availability information" (recited in Applicants' Claim 20).

Furthermore, *Dudle* does not disclose, teach, or suggest "determining which of the items of the selection option set are actually available to the user and presenting only those items of the selection option set which are actually available to the user" (recited in Applicants' Claim 10). In contrast, *Dudle* discloses first generating an item specification for a business form and then determining availability using a manufacturing information processing system (MIPS). According to *Dudle*, an MIPS includes "a Raw Materials Inventory Control subsystem 104 for monitoring supplies (e.g., paper, ink), and informing the Purchasing subsystem 84 when raw materials are needed." Column 8, lines 28-31. *Dudle* discloses:

The process of generating an item specification for a business form at a sales site 12, obtaining estimate data from a corporate office 16, and ultimately forwarding a production order for the custom manufacture of the form to a plant 14 is described in connection with the flow chart depicted in FIG. 4. With reference to block 140 in FIG. 4, a sales representative determines customer requirements for a business form during, for example, a meeting with the customer, and begins to enter a corresponding item specification into a PC 62 or to modify an existing item specification by selecting the Estimate subsystem 115 from the main menu (FIG. 3) of the SIN system appearing on the PC monitor.

Column 11, lines 52-63.

With reference to block 174, a production order which does not require review, or which has been found acceptable upon review by production management personnel, is subsequently transmitted electronically to the plant. As shown in block 175, the MIPS at the selected plant in turn places the production order in a queue for planning purposes by the Planning Bill of Materials subsystem 102.

Column 16, lines 28-34. That is, first an item specification for a business form is generated and then a MIPS determines availability. Therefore, *Dudle* does not disclose, teach, or suggest "determining which of the items of the selection option set are actually available to the user and presenting only those items of the selection option set which are actually available to the user" (recited in Applicants' Claim 10).

For at least the above reasons, *Dudle* does not disclose, teach, or suggest the combinations of limitations specifically recited in Applicants' independent Claims 1, 10, or 20.

Applicants' dependent claims are allowable based on their dependence on the independent claims and further because they recite numerous additional patentable distinctions over the prior art. For example only, as discussed above, *Dudle* does not disclose, teach, or suggest determining whether an item is available for a user before presenting the item to the user, as recited in Applicants' Claims 2 and 21. Applicants' other dependent claims are similarly allowable. Because Applicants believe they have amply demonstrated the allowability of the independent claims over the prior art, and to avoid burdening the record, Applicants have not provided detailed remarks concerning the other dependent claims. Applicants, however, remain ready to provide such remarks if it becomes appropriate to do so.

Accordingly, Applicant respectfully requests reconsideration and allowance of independent Claims 1, 10, and 20 and all claims that depend on the independent claims.

Claims 21-24 are allowable under 35 U.S.C. § 103(a)

The Examiner rejects Claims 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over *Dudle* in view of U.S. Patent No. 6,188,989 to Kennedy (*Kennedy*). Applicants respectfully submit that *Dudle* in view of *Kennedy* fails to disclose, teach, or suggest the combination of limitations specifically recited in Applicants' claims. For example, as discussed above, *Dudle* does not disclose, teach, or suggest "default item being determined by applying an optimization function to the item availability information," as recited in independent Claim 20. Accordingly, *Dudle*, even in light of *Kennedy*, fails to disclose, teach, or suggest the default selection as recited in Claims 21 and 22, which depend on Claim 20. For at least this reason, Applicants respectfully request reconsideration and allowance of Claims 21 and 22.

The Examiner rejects Claims 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over *Dudle* in view of *Kennedy* and further in view of U.S. Patent No. 5,963,953 to Cram et al. (*Cram*). Applicants respectfully submit that *Dudle* in view of *Kennedy* and

Cram fails to disclose, teach, or suggest the combination of limitations specifically recited in Applicants' claims. For example, as discussed above, *Dudle* does not disclose, teach, or suggest "default item being determined by applying an optimization function to the item availability information," as recited in independent Claim 20. Accordingly, *Dudle*, even in light of *Kennedy* and *Cram*, fails to disclose, teach, or suggest the default selection as recited in Claims 23 and 24, which depend on Claim 20. For at least this reason, Applicants respectfully request reconsideration and allowance of Claims 23 and 24.

New Claims

For at least the reasons set forth above, Applicants further request consideration and allowance of all new claims.

Conclusion

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Christopher W. Kennerly, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6812.

Applicants have included a check for \$438.00 for the fee for two new independent claims and fifteen additional claims total. Although Applicants believe no other fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Mark-Ups Reflecting Changes

In the Claims

1. (Amended) A method for configuring a product, comprising [the steps of]:
[defining a configuration preference for] initiating a session in which a user configures a product comprising a configuration of items selected from a plurality of items;
[presenting] generating a series of selection option sets [to the user], each selection option set [containing] comprising at least one item and generated in accordance with a selection of an item by the user from a previous selection option set; [and]
identifying an item of a selection option set as a default selection, the default selection optimizing an optimization function;
providing for presentation to the user the series of selection option sets, the selection option set comprising the identified default selection;
[for each selection option set,] accepting from the user a selection of an item from [the] one or more selection option sets[, wherein selection of an item from each set defines a configuration for the product]; and
determining a configuration for the product in accordance with the selections of the items from the one or more selection option sets
[wherein, each time a set of selections is presented to the user, a default selection from the set is presented which provides a best fit with the preference].
2. (Amended) The method of claim 1, wherein each selection option set presented to the user is checked before presentation to confirm that all items in the selection option set are actually available to the user.

3. (Amended) The method of claim 1, wherein [the step of presenting a default selection includes defining] identifying an item of the selection option set as a default selection comprises identifying a default selection which provides [a good] an optimized fit [with an] according to the optimization function [in addition to the best fit with the preference].

4. (Amended) The method of claim [3] 1, wherein the optimization function maximizes manufacturer profit.

5. Canceled without prejudice or disclaimer.

6. (Amended) The method of claim 1, wherein the [preference selects] default selection comprises an item having a low price.

7. (Amended) The method of claim 1, wherein the [preference] optimization function is defined during the session.

8. (Amended) The method of claim [7] 1, wherein the [preference] optimization function is defined in response to an identification of the user.

9. (Amended) The method of claim [7] 1, wherein the [preference] optimization function is defined in response to a product selection decision made by the user.

10. (Amended) A method for configuring a product, comprising **[the steps of]**:
[presenting] providing for presentation to a user a series of selection option sets **[to the user]**, each **selection option** set **[containing] comprising an [at least one]** item, **each selection option set generated in accordance with a selection of an item by the user from a previous selection option set;**

for at least one of the selection option sets, identifying a default selection;

[for each set, accepting a selection of an item from the user;]

for each **selection option** set, before presenting the selection option[s] **set** to the user, determining which of the items **of the selection option set** are actually available **to the user** and presenting only those items **of the selection option set** which are actually available **to the user**;

for each selection option set, accepting a selection of an item from the user; and

for the at least one **selection option** set[s in] **for** which a default selection is identified, selecting as the default **selection** an item which is actually available **to the user** and which provides **[a best] an optimized** result **according** to a preselected optimization function.

11. (Amended) The method of claim 10, further comprising **[the steps of]**:
before any selection **option** sets are presented to the user, defining configuration information to provide **[a] the** series of selection **option** sets to be presented to configure the product; and

within the determining step, determining which of the items in the defined configuration information are actually available **to the user**.

12. (Amended) The method of claim 11, further comprising **[the steps of]**:
as selections are made by the user, adding **one or more** constraints to later presented selection **option** sets; and

within the determining step, determining which of the items **are** in the defined configuration information, **[and which]** meet **the one or more** constraints added by user selections, and are actually available **to the user**.

13. **(Amended)** The method of claim 10, wherein the preselected optimization function is selected during a session with the user in which the product configuration is performed.

14. **(Amended)** The method of claim 13, wherein the preselected optimization function is selected as a function of an identity of the user.

15. **(Amended)** The method of claim 13, wherein the preselected optimization function is selected by the user.

16. **(Amended)** The method of claim 10, wherein the default [item is selected which] selection provides [a best] an optimized result according to a second optimization function and according to the first optimization function.

17. **(Amended)** The method of claim 10, wherein the preselected optimization function [is] comprises a function which minimizes price to the user.

18. **(Amended)** The method of claim 10, wherein the preselected optimization function [is] comprises a function which maximizes profit to a manufacturer.

19. **(Amended)** The method of claim 10, wherein the preselected optimization function [is] comprises a function which minimizes time to delivery of the product.

20. (Amended) A system for configuring a product[s], comprising:

a configuration engine operable to:

communicate with a user interface [for displaying] operable to display a plurality of lists of items to a user and [accepting] to accept a plurality of selections from the user, [wherein] for at least one list a default item [is] being indicated to the user; and [an engine which]

generate the lists of items, each list of items generated in accordance with a selection by the user from a previous list of items; and

an available to promise engine operable to:

store[s] information indicating [product] item availability; and [, wherein the engine]

provide[s] the lists of items to the user interface for display, [and wherein the engine determines] the default item being determined by applying an optimization function to the [product] item availability information.

21. (Amended) The system of claim 20, wherein [the engine comprises]:

[a configuration engine connected to the user interface, wherein] the configuration engine is operable to determine[s sets of items to be displayed in] the lists of items [to the user] in response to selections made by the user; and

[an available to promise engine connected to the configuration engine, wherein] the available to promise engine [contains]:

comprises information regarding availability of the items determined by the configuration engine; [, and further contains]

comprises information for each item used in applying the optimization function to the available items[,]; and [wherein the available to promise engine]

is operable to return[s] to the configuration engine a list of items which are actually available to the user.

22. (Amended) The system of claim 21, wherein the configuration engine is operable to [applies] apply the optimization function to the actually available items returned from the available to promise engine.

23. (Amended) The system of claim 21, wherein the available to promise engine is operable to: [applies]

apply the optimization function to the items which are actually available before returning the list to the configuration engine[,]; and

[identifies] identify the default item when the list is returned.

24. (Amended) The system of claim 21, wherein[,];

for each list of items to be displayed to the user, the configuration engine is operable to pass[es] to the available to promise engine a list of proper configuration items[,]; and [wherein,]

for each list of proper configuration items, the available to promise engine is operable to: determine[s] which items are actually available to the user[,];

[applies] apply the optimization function to each available item[,]; and

return[s] to the configuration engine a list of available items and an identification of which item best matches the optimization function.

25. The system of claim 20, wherein the optimization function comprises a function for minimizing product price.

26. The system of claim 20, wherein the optimization function comprises a function for maximizing profits.

27. The system of claim 20, wherein the optimization function comprises a function for minimizing delay until the product is available.

Please add the following new claims:

28. **(New)** A method for configuring a product, comprising:
- initiating a session in which a user configures a product, the product comprising a configuration of items selected from a series of lists, each list comprising one or more items selected from a plurality of items;
 - receiving from the user a selection of an item from a current list comprising one or more items;
 - generating a next list comprising one or more items in accordance with the selection of the item from the current list;
 - identifying a default selection comprising an item of the next list that optimizes an optimization function;
 - providing for presentation to the user the next list comprising the one or more items having the identified default selection; and
 - determining a configuration for the product in accordance with the selection of items from the lists.
29. **(New)** The method of Claim 28, further comprising repeating the following for each list of the series of lists until a last list is reached:
- receiving from the user a selection of an item from a current list comprising one or more items;
 - generating a next list comprising one or more items in accordance with the selection of the item from the current list;
 - identifying a default selection comprising an item of the next list that optimizes the optimization function; and
 - providing for presentation to the user the next list comprising the one or more items having the identified default selection.

30. **(New)** The method of Claim 28, wherein generating the next list comprises:
determining a valid item configuration for the product in accordance with the selection of the item from the current list and in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only one or more items of the valid item configuration.
31. **(New)** The method of Claim 28, wherein generating the next list comprises:
determining one or more items of the next list that are available to the user in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only the one or more items of the next list that are available to the user in accordance with the constraint restricting selection of an item for the product.
32. **(New)** The method of Claim 28, wherein the optimization function comprises a function for minimizing product price.
33. **(New)** The method of Claim 28, wherein the optimization function comprises a function for maximizing profits.
34. **(New)** The method of Claim 28, wherein the optimization function is selected as a function of an identity of the user.
35. **(New)** The method of Claim 28, wherein the optimization function is selected by the user.

36. (New) A system for configuring a product, the system comprising one or more software components embodied in computer-readable media and when executed operable to:

initiate a session in which a user configures a product, the product comprising a configuration of items selected from a series of lists, each list comprising one or more items selected from a plurality of items;

receive from the user a selection of an item from a current list comprising one or more items;

generate a next list comprising one or more items in accordance with the selection of the item from the current list;

identify a default selection comprising an item of the next list that optimizes an optimization function;

provide for presentation to the user the next list comprising the one or more items having the identified default selection; and

determine a configuration for the product in accordance with the selection of items from the lists.

37. (New) The system of Claim 36, operable to repeat the following for each list of the series of lists until a last list is reached:

receiving from the user a selection of an item from a current list comprising one or more items;

generating a next list comprising one or more items in accordance with the selection of the item from the current list;

identifying a default selection comprising an item of the next list that optimizes the optimization function; and

providing for presentation to the user the next list comprising the one or more items having the identified default selection.

38. **(New)** The system of Claim 36, operable to generate the next list by:
determining a valid item configuration for the product in accordance with the selection of the item from the current list and in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only one or more items of the valid item configuration.
39. **(New)** The system of Claim 36, operable to generate the next list by:
determining one or more items of the next list that are available to the user in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only the one or more items of the next list that are available to the user in accordance with the constraint restricting selection of an item for the product.
40. **(New)** The system of Claim 36, wherein the optimization function comprises a function for minimizing product price.
41. **(New)** The system of Claim 36, wherein the optimization function comprises a function for maximizing profits.
42. **(New)** The system of Claim 36, wherein the optimization function is selected as a function of an identity of the user.
43. **(New)** The system of Claim 36, wherein the optimization function is selected by the user.